

MATERIAL SAFETY DATA SHEET



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DATE PREPARED: 02/01/1996

MSDS No: 6057

ORTHO[®] Hornet & Wasp Killer 2

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: ORTHO[®] Hornet & Wasp Killer 2
Product Description: Insecticide (Aerosol)

MANUFACTURER:

The SOLARIS Group
of Monsanto Company
P.O. Box 5008
San Ramon, CA 94583-0808

24 HR. EMERGENCY TELEPHONE NUMBERS:

Emergency Phone 800-454-2333

EPA Reg. No.: 239-2619D

PN: 1000-115

2. COMPOSITION/INFORMATION ON INGREDIENTS

	wt. %	CAS Registry #
Diazinon, Diethyl-Isopropylethylpyrimidinyl-Phosphorothioate	0.5	333-41-5
Pyrethrum, Pyrethrins	0.05	8003-34-7
INERT INGREDIENTS	~99.45	

"Inert Ingredients" is a term defined by the U.S. Environmental Protection Agency under the Federal Insecticide, Fungicide, and Rodenticide Act (40 CFR 158.153). It refers to any substance, other than an active ingredient, which is intentionally added to a pesticide product. Some inert ingredients may be hazardous chemicals, as defined by the Federal OSHA Hazard Communication Standard (29 CFR 1910.1200). The hazards associated with these inert ingredients have been included in this document.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE:

White, creamy smooth liquid in aerosol container

IMMEDIATE CONCERNS:

- HARMFUL IF INHALED
- CAUSES SKIN IRRITATION
- CAUSES MODERATE EYE IRRITATION
- DO NOT GET ON SKIN OR CLOTHING
- AVOID BREATHING VAPOR OR SPRAY MIST
- KEEP OUT OF REACH OF CHILDREN

POTENTIAL HEALTH EFFECTS

EYES:

This substance causes moderate irritation to the eyes. Eye contact may include discomfort, tearing, swelling, redness, and blurred vision.



SKIN:

This substance can cause skin irritation. Skin irritation may include discomfort, redness and swelling. If absorbed through the skin, this substance is considered practically non-toxic to internal organs.

INGESTION:

If swallowed, this substance is considered practically non-toxic to internal organs. This product contains a petroleum distillate. Due to the low viscosity of petroleum distillate, it can directly enter the lungs if it is swallowed (this is called aspiration). This can occur during the act of swallowing or when vomiting the substance. Once in the lungs, the substance is very difficult to remove and can cause severe injury to the lungs and death.

INHALATION:

Breathing the vapor may be irritating to the respiratory tract. This substance is slightly toxic to internal organs if inhaled. The degree of injury will depend on the airborne concentration and duration of exposure.

SUBCHRONIC/CHRONIC TOXICITY

CHRONIC:

Diazinon was not carcinogenic when tested in rats, and mice in two-year feeding studies.

TARGET ORGANS:

Diazinon is an inhibitor of the cholinesterase enzyme, found in nervous tissue, red blood cells, and plasma.

COMMENTS HEALTH:

Depending upon the extent and degree of overexposure to the product, signs and symptoms of cholinesterase inhibition can result following either ingestion, skin contact or inhalation routes of exposure. Signs and symptoms of cholinesterase inhibition can also result from either acute (one time), subchronic (repeated short-term) and chronic (daily life-time) overexposure to the product.

Signs and symptoms of cholinesterase inhibition usually occur within 12 hours following overexposure. These effects may include, but may not be limited to, headache, dizziness, weakness, nausea, vomiting, diarrhea, constriction of the pupil of the eye, blurred or dark vision, excessive salivation or nasal discharge, profuse sweating and abdominal cramps. Incontinence, unconsciousness, convulsions and breathing difficulties are indicative of severe poisoning. In untreated severe poisoning, death is due to respiratory failure or cardiac arrest.

This product also contains a petroleum distillate. Depending upon the degree of overexposure, the systemic toxicity of the product may be of less concern than the potential clinical complications that can result from aspiration of the petroleum distillate into the lungs if the product is either swallowed or vomited.



4. FIRST AID MEASURES

EYES:

Flush eyes immediately with fresh water for at least 15 minutes while holding the eyelids open. Remove contact lenses if worn. Call a physician if irritation persists.

SKIN:

Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention. Wash contaminated clothing.

INGESTION:

If swallowed, immediately telephone a poison control center, emergency treatment center or a physician for advice. DO NOT make person vomit unless directed to do so by medical personnel. If medical advice cannot be obtained, then immediately take person and product container, with label, to an emergency treatment center.

INHALATION:

If respiratory discomfort or irritation occurs, move the person to fresh air. See a doctor if discomfort or irritation continues.

NOTES TO PHYSICIAN:

Ingestion of this product or subsequent vomiting can result in aspiration of light hydrocarbon liquid which can cause pneumonitis. This material contains a cholinesterase inhibitor. Measurement of blood cholinesterase activity may be useful in monitoring exposure. If signs of cholinesterase inhibition appear, atropine sulfate is antidotal. 2-PAM (PROTOPAM) is also antidotal and may be used in conjunction with atropine but should not be used alone.

ADDITIONAL INFORMATION:

In case of medical emergencies involving this product, call day or night, (800) 454-2333.

5. FIRE FIGHTING MEASURES

Flashpoint and Method: 127°F TAG CC

FLAMMABLE CLASS:

N.F.P.A (Code 30B) Level I Aerosol

EXTINGUISHING MEDIA:

CO₂, Dry Chemical, Foam and Water Fog.

HAZARDOUS COMBUSTION PRODUCTS:

Thermal decomposition products include, but are not limited to, various aliphatic organophosphates, substituted pyrimidines, and hydrogen cyanide.



FIRE FIGHTING PROCEDURES:

Products of combustion from fires involving this material may be toxic. Avoid breathing smoke and mists. Avoid personnel and equipment contact with fallout and runoff. Minimize the amount of water used for fire fighting. Do not enter any enclosed area without full protective equipment, including self-contained breathing equipment. Keep containers cool with a water spray. Contain and isolate runoff and debris for proper disposal. Decontaminate personal protective equipment and fire fighting equipment before reuse. Read the entire document.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL:

Soak up spilled material with paper towels and discard in trash.

LARGE SPILL:

Eliminate all sources of ignition in vicinity of spill or released vapor.

Liquid spills on floor or other impervious surfaces should be contained or diked, and should be absorbed with attapulgite, bentonite or other absorbent material. Collect contaminated absorbent, place in plastic-lined metal drum and dispose of in accordance with instructions provided under Section 13. "DISPOSAL". Thoroughly scrub floor or other impervious surface with a strong industrial type detergent solution and rinse with water.

For liquid spills that soak into the ground, contact the applicable Federal, State and or County Health Dept. for disposal recommendations. If disposal is required then refer to Section 13 "DISPOSAL" for instructions.

Leaking containers should be separated from non-leakers and either the container or its contents transferred to a drum or other non-leaking container and disposed of in accordance with instructions provided under Section 13 "Disposal". Any recovered spilled liquid should be similarly collected and disposed of.

Do not contaminate water, foodstuffs or feed by storage or disposal.

GENERAL PROCEDURES:

Observe all protection and safety precautions when cleaning up spills – see Section 8, "EXPOSURE CONTROLS/PERSONAL PROTECTION". For help with any spill, leak, fire or exposure involving this material, call day or night (800) 454-2333.

7. HANDLING AND STORAGE

GENERAL PROCEDURES:

READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL. Store in accordance with NFPA 30B for a Level 1 aerosol. DO NOT USE OR STORE near flame, sparks or hot surfaces. USE ONLY IN WELL VENTILATED AREA. CONTAINER UNDER PRESSURE. Exposure to heat or prolonged exposure to sun may cause container to burst. Do not puncture, incinerate or store above 130.



8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

No special ventilation is normally required. However, if operating conditions create airborne concentrations which exceed the recommended exposure standards (in Section 8), then special ventilation may be required.

PERSONAL PROTECTION

EYES AND FACE:

For application of product in accordance with label instructions, no special eye protection is needed.

Handling of the product is not likely to present an eye exposure concern during normal handling. In the event of an accidental discharge of the material during manufacture or handling which could cause eye contact, workers should wear goggles or a face shield.

SKIN:

No special skin protection is usually necessary. Avoid prolonged or frequently repeated skin contact with this material. Skin contact can be minimized by wearing protective clothing. Wash thoroughly with soap and water after handling.

RESPIRATORY:

Handling of the product is not likely to present an airborne exposure concern during normal handling. In the event of an accidental discharge of the material during manufacture or handling which produces a heavy mist, workers should put on respiratory protection equipment. Consult respirator manufacturer to determine appropriate type of equipment. Observe respirator use limitations specified by NIOSH MSHA or the manufacturer.

For application of product in accordance with label instructions, no special respiratory protection is required.

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200):

	EXPOSURE LIMITS		
	OSHA PEL	ACGIH TLV	ACGIH STEL
Diethyl-Isopropylethylpyrimidinyl-Phosphorothioate	0.1 mg/m ³	0.1 mg/m ³	None
Pyrethrins	5 mg/m ³	5 mg/m ³	None
Distillates (Petroleum), Hydrotreated Light	None	None	None

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Aerosol

Appearance: Opaque white liquid with characteristic Diazinon odor

Percent Volatile: No Data Available



Vapor Pressure: No Data Available
Vapor Density: No data Available
Boiling Point: No Data Available
Freezing Point: No Data Available
Melting Point: No Data Available
Specific Gravity: 0.954 gr/cc at 20°C
Viscosity: ~250 to 1500 cps (Brookfield)

COMMENTS:

pH: 6.7 - 8.8 (For a 1% Solution)
Density: 7.94 Lbs. per gallon @ 20°C

10. STABILITY AND REACTIVITY

STABLE: Yes

HAZARDOUS POLYMERIZATION: No

CONDITIONS TO AVOID

NOTES:

Avoid contact with acids and bases.

INCOMPATIBLE MATERIALS:

No data available.

11. TOXICOLOGICAL INFORMATION

ACUTE

Eyes: Results of the rabbit eye irritation study indicated that all eye irritation cleared by 4 days.

Skin: The Draize Skin Primary Irritation Score (range, 0-8) for a 4-hour exposure (rabbits) is

5.1. This material was not a skin sensitizer in the modified Buehler Guinea Pig Sensitization Test. The dermal LD50 in rabbits is greater than 5 g/kg.

Ingestion: The oral LD50 in rats is greater than 5.0 g/kg.

Inhalation: The 4-hour inhalation LC50 in rats is greater than 4.2 mg/l.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA:

No data available.



ECOTOXICOLOGICAL INFORMATION:

This material is toxic to birds, fish and other wildlife. Highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. This material is toxic to aquatic organisms and should be kept out of sewage and drainage systems and all bodies of water.

13. DISPOSAL CONSIDERATIONS

FOR LARGE SPILLS:

Material collected that cannot be reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, State or local procedures.

PRODUCT DISPOSAL:

The Solaris Group is committed to responsible environmental practices and recommends that all of the product be used up, carefully following all label directions and precautions.

If necessary to dispose of partially filled product containers, then replace cap and discard in the trash. Do not incinerate, puncture or discard in home trash compactor.

GENERAL COMMENTS:

This container may be recycled in the few but growing number of communities where (steel) aerosol can recycling is available. Before offering for recycling, empty the can by using the product according to the label. (DO NOT PUNCTURE) If recycling is not available, wrap the container and discard in the trash.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

Proper Shipping Name: Consumer Commodity
Hazard Class: ORM-D
NA/UN Number: NONE
Packing Group: NO
U.S. Surface Freight Class: NMFC NBR. 102120

INTERNATIONAL (I.M.O.)

Marine Pollutant: Diazinon (Severe Marine Pollutant)

AIR (I.C.A.O.)

Proper Shipping Name: Consumer Commodity

SPECIAL SHIPPING NOTES:

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

PRODUCT CLASSIFICATION UNDER SECTION 311 OF SARA				
Acute: Yes	Chronic: No	Fire: No	Reactivity: No	Pressure Generating: Yes

313 Reportable Ingredients: Diazinon (CAS 333-41-5). De Minimis Concentration for Section 313 of EPCRA is 1.0%.

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA RQ: 1 Lb. of Diazinon and Pyrethrin.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA Regulatory: All non FIFRA regulated components are on the US EPA's TSCA Inventory List.

16. OTHER INFORMATION

Hazard Rating Systems: This information is for people trained in the use of the following hazard identification systems. National Paint & Coatings Association's (NPCA) "Hazardous Materials Identification System" (HMIS) and the National Fire Protection Association's (NFPA) Hazard Diamond.

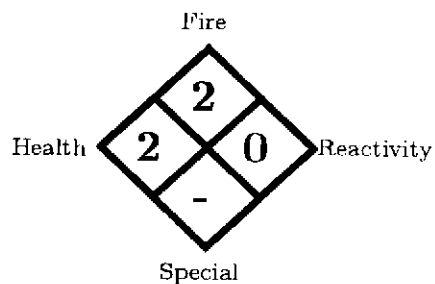
HMIS Rating

Health	2
Flammability	2
Reactivity	0
Protection	-

Key

- 4 = Severe
- 3 = Serious
- 2 = Moderate
- 1 = Slight
- 0 = Minimal

NFPA Rating





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Approval date: 02/01/1996

REVISION SUMMARY

Revision #: 1

This MSDS replaces the September 12, 1995 MSDS. Any changes in information are as follows:

In Section 1

Date Prepared

In Section 5

Flash Point °F (from) Flash Point

In Section 14

Proper Shipping Name

In Section 15

Fire

In Section 16

HMIS Flammability HMIS Ratings Notes NFPA Flammability

COMMENTS:

For additional information concerning this product, call the SOLARIS Groups Consumer Helpline at 800-225-2883.

MANUFACTURER DISCLAIMER:

This Material Safety Data Sheet (MSDS) contains health, safety and environmental information for you and your employees. It does not replace the precautionary language, use directions, or the storage and disposal information found on the product label. Information contained in this MSDS will help you to prepare for emergency response and to meet community right-to-know, emergency response and reporting requirements under SARA Title III and many other laws. Emergency response agencies and health care providers will also find this additional information useful.

Use of this product is regulated by the U.S. Environmental Protection Agency (EPA) through the approved label copy. It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Monsanto Company and The Solaris Group make no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determinations as to its suitability for their purposes prior to use. In no event will Monsanto Company or The Solaris Group be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information. NO REPRESENTATIONS OR WARRANTIES, EITHER

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